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**Brain Injury
Alliance**

N E W J E R S E Y

INTRODUCTION TO BRAIN INJURY

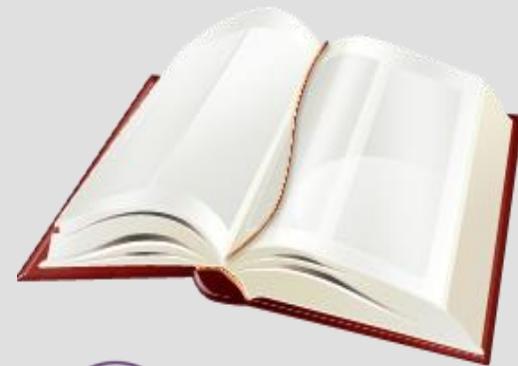
Joy Melendez, MSW

Director of Education and Outreach

DEFINING BRAIN INJURY

Acquired Brain Injury (ABI) is an injury to the brain that has occurred after birth.

Traumatic Brain Injury (TBI) is an insult or blow to the brain caused by an external physical force.



CAUSES OF ABI?

- Anoxia (Lack of oxygen/blood flow)
- Aneurysms
- Infections to the brain
- Intracranial surgery
- Toxic exposure
- Traumatic brain injury



Leading Causes of TBI

#1 Falls

#2 Motor vehicle crashes

#3 Struck by or against an object

#4 Assaults



Blast Injuries are a leading cause of TBI for active duty military personnel in war zones.

Statistics from the [Centers for Disease Control](https://www.cdc.gov/)



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Who is at Risk?

- Children aged 0 to 4 years
- Adolescents aged 15 to 19 years
- Adults aged 65 years and older
- Individuals who have already sustained a concussion.

Statistics from the [Centers for Disease Control](#)



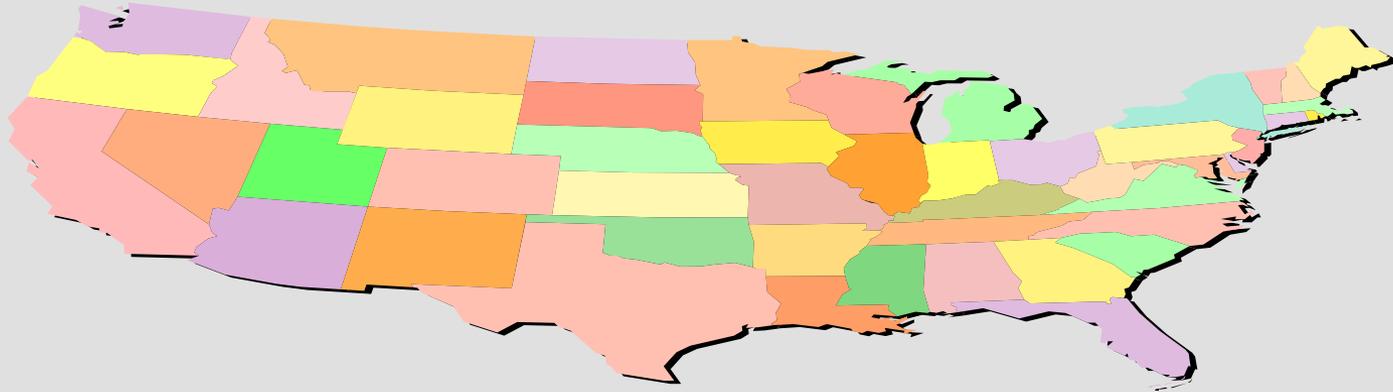
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“The Silent Epidemic”

It is estimated that over

5.3 MILLION

Americans are living with a disability as
a result of a Brain Injury.



Statistics from the [Centers for Disease Control](#)

Taylor CA, Bell JM, Breiding MJ, Xu L. [Traumatic Brain Injury–Related Emergency Department Visits, Hospitalizations, and Deaths — United States, 2007 and 2013](#). MMWR Surveill Summ 2017;66(No. SS-9):1–16. DOI: <http://dx.doi.org/10.15585/mmwr.ss6609a1>



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TBI FACTS

- TBIs account for 30% of all injury deaths.¹
- Every day, 153 people in the United States DIE from injuries that include TBI.¹
- Each year an estimated 1.5 Million Americans sustain a TBI.

Statistics from the [Centers for Disease Control](#)

Taylor CA, Bell JM, Breiding MJ, Xu L. [Traumatic Brain Injury–Related Emergency Department Visits, Hospitalizations, and Deaths — United States, 2007 and 2013](#). MMWR Surveill Summ 2017;66(No. SS-9):1–16. DOI: <http://dx.doi.org/10.15585/mmwr.ss6609a1>



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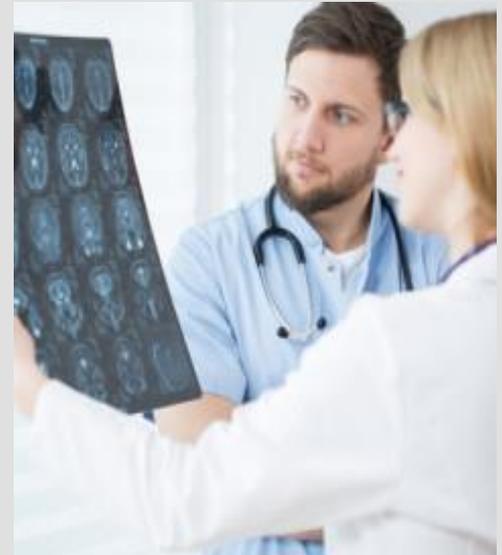
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SEVERITY OF BRAIN INJURY

MILD – Usually there is no loss of consciousness.

MODERATE - Loss of consciousness lasts from a few minutes to a few hours.

SEVERE - Prolonged unconsciousness can last for several days, weeks or even longer



Physical Changes

- Fatigue
- Loss of smell & taste
- Hearing Loss
- Visual Problems
- Sleep disturbances
- Balance & coordination
- Dysarthria
- Motor control
- Seizures
- Decreased tolerance for drugs and alcohol
- Headaches

Cognitive Changes

- Aphasia
- Memory loss
- Lack of initiative
- Impaired reasoning
- Visual/Perceptual Skills
- Processing and understanding
- Communication
- Attention span
- Planning/Organizing
- Lack of focus
- Completing tasks
- Controlling impulses
- Diminished insight and empathy



Emotional & Behavioral Changes

- Impulsivity
- Emotional lability
- Irritability
- Decrease frustration tolerance
- Impaired judgment
- Anxiety
- Depression
- Aggressive behaviors
- Changed sexual drive
- Changed personality



What Will Happen?

- Each person may have a different combination of problems.
- Each person may also have intact abilities



Rehabilitation

- Measured in weeks, months and years
- Rehabilitation from brain injury can occur be a slow process with progress continuing years after the injury.
- Patience is very important.



Psychosocial Changes

- Educational/Vocational Changes
- Family Issues
- Interpersonal Difficulties
 - Intimacy/Sexuality
 - Establishing and Maintaining Relationships
 - Alcohol/Drugs
- Intra-personal Difficulties
 - Loss of Self Esteem
 - Depression/Frustration
 - Shaken Sense of Self
 - Profound Sense of Loss



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FINANCIAL IMPACT

- Abuse of tobacco, alcohol, and illicit drugs is costly to our Nation, exacting more than \$740 BILLION annually in costs related to crime, lost work productivity and health care.

Estimate of Cost is National Drug Intelligence Center. [National Drug Threat Assessment](#). Washington, DC: United States Department of Justice; 2011.

Birnbaum, HG. et al. [Societal Costs of Prescription Opioid Abuse, Dependence, and Misuse in the United States](#). Pain Medicine 2011; 12: 657-667.



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| SUBSTANCE | HEALTH CARE | OVERALL | YEAR ESTIMATE BASED ON |
|-------------------------------|---------------|----------------|------------------------|
| Tobacco <u>1,2</u> | \$168 Billion | \$300 Billion | 2010 |
| Alcohol <u>3</u> | \$27 Billion | \$249 Billion | 2010 |
| Illicit Drugs <u>4,5</u> | \$11 Billion | \$193 Billion | 2007 |
| Prescription Opioids <u>6</u> | \$26 Billion | \$78.5 Billion | 2013 |

U.S. Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress. A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2014. www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf (PDF, 38MB)

Xu X, Bishop EE, Kennedy SM, Simpson SA, Pechacek TF. Annual Healthcare Spending Attributable to Cigarette Smoking: An Update. *American Journal of Preventive Medicine* 2014;48(3):326–33 [accessed 2017 Feb 28].

Centers for Disease Control and Prevention. Excessive Drinking is Draining the U.S. Economy. <https://www.cdc.gov/features/costsofdrinking/> Updated January 2016. Accessed April 21, 2017.

National Drug Intelligence Center. National Drug Threat Assessment. Washington, DC: United States Department of Justice; 2011. www.justice.gov/archive/ndic/pubs44/44849/44849p.pdf (PDF, 8MB)

Birnbaum, HG. et al. Societal Costs of Prescription Opioid Abuse, Dependence, and Misuse in the United States. *Pain Medicine* 2011; 12: 657-667.

Florence, CS et al. The Economic Burden of Prescription Opioid Overdose, Abuse, and Dependence in the United States, 2013; *Medical Care*. Volume 54, Number 10, October 2016.



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“Addiction has a specific definition: You are unable to stop when you want to, despite [being] aware of the adverse consequences. It permeates your life; you spend more and more time satisfying your [your craving].”

Quote from Nora Volkow, MD
Director of NIDA



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“Addiction is a chronic and relapsing brain disease characterized by uncontrollable drug-seeking behavior and use. It persists even with the knowledge of negative health and social consequences.”

Quote by: Scott E. Lukas, PhD
McLean Hospital



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How Can You Help?

- Become more knowledgeable about brain injury and appropriate resources.
- Offer understanding and support to a person with a brain injury and his/her family.
- Provide appropriate assistance and accommodations.
- Develop agency protocols for working with people with brain injury.



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BIANJ Programs & Services

- Helpline: (800) 669-4323
- www.bianj.org
- Family Support & Support Coordination Services
- BIANJ CARES & CARES for Kids
- Support Groups statewide
- Traveling Workshops
- Webinars
- Annual Professional Seminar
- Fall Family Conference
- Camp TREK
- Annual Walk for Brain Injury Awareness



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BIANJ Programs & Services

Legislative Affairs

The Alliance maintains a voice in government promoting services for those affected by brain injury and safety legislation.

CHIC

(Council for the Head Injured Community)

A self-advocacy group run by and for people with brain injury.



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THANK YOU